

09/807,802  
GNVPN.031US

Appendix  
CLEAN COPY OF PENDING CLAIMS

1. An isolated AAV-1 nucleic acid molecule comprising a sequence selected from the group consisting of:
  - (a) SEQ ID NO: 1;
  - (b) a DNA sequence complementary to SEQ ID NO: 1;
  - (c) cDNA complementary to (a) or (b); and
  - (d) RNA complementary to any of (a) to (c).
2. A nucleic acid molecule comprising an AAV-1 inverted terminal repeat (ITR) sequence selected from the group consisting of:
  - (a) nt 1 to 143 of SEQ ID NO: 1;
  - (b) nt 4576 to 4718 of SEQ ID NO: 1;
  - (c) a nucleic acid sequence complementary to (a) or (b); and
  - (d) a functional fragment of (a), (b), or (c).
3. A recombinant vector comprising a 5' AAV-1 inverted terminal repeat (ITR) and a selected transgene, wherein said ITR has the sequence selected from the group consisting of:
  - (a) nt 1 to 143 of SEQ ID NO: 1;
  - (b) a nucleic acid sequence complementary to (a); and
  - (c) a functional fragment of (a) or (b).
4. The recombinant vector according to claim 3, wherein said vector further comprises a 3' AAV-1 ITR.

09/807,802  
GNVPN.031US

5. A recombinant vector comprising a 3' AAV-1 inverted terminal repeat (ITR) and a selected transgene, wherein said ITR has the sequence selected from the group consisting of:

- (a) nt 4576 to 4718 of SEQ ID NO: 1;
- (b) a nucleic acid sequence complementary to (a); and
- (c) a functional fragment of (a) or (b).

6. The recombinant vector according to claim 5, wherein said vector further comprises a 5' AAV-1 ITR.

9. A recombinant vector comprising an AAV-1 P5 promoter having the sequence of nt 236 to 299 of SEQ ID NO: 1 or a functional fragment thereof.

10. A nucleic acid molecule encoding AAV-1 helper functions, said molecule comprising an AAV rep coding region and an AAV cap coding region, wherein said cap coding region comprises at least one member is selected from the group consisting of:

- (a) vp1, nt 2223 to 4431 of SEQ ID NO: 1;
- (b) vp2, nt 2634 to 4432 of SEQ ID NO: 1; and
- (c) vp3, nt 2829 to 4432 of SEQ ID NO: 1.

11. A nucleic acid molecule encoding AAV-1 helper functions, said molecule comprising an AAV rep coding region and an AAV cap coding region, wherein said rep coding region comprises an AAV-1 rep coding region comprising at least one member selected from the group consisting of:

- (a) rep 78, nt 335 to 2304 of SEQ ID NO: 1;
- (b) rep 68, nt 335 to 2272 of SEQ ID NO: 1 or the c DNA

corresponding thereto;

- (c) rep 52, nt 1007 to 2304 of SEQ ID NO: 1; and

09/807,802  
GNVPN.031US

(d) rep 40, nt 1007 to 2272 of SEQ ID NO: 1 or the cDNA corresponding thereto.

14. A host cell stably transduced with an AAV-1 P5 promoter having the sequence of nt 236 to 299 of SEQ ID NO: 1.

16. A pharmaceutical composition comprising a carrier and a virus comprising the vector according to claim 7.

17. A pharmaceutical composition comprising a carrier and a virus comprising the vector according to claim 8.

18. A method for AAV-mediated delivery of a transgene comprising the step of delivering to a host cell an AAV virion which comprises:

(a) a capsid comprising at least one capsid protein encoded by an AAV-1 cap gene; and

(b) a DNA molecule comprising a transgene under the control of regulatory sequences directing its expression.

19. A method for AAV-mediated delivery of a transgene to a host comprising the steps of:

(a) assaying a sample from the host to determine the presence of neutralizing antibodies specific against any serotype of AAV; and

(b) delivering to the host an AAV virion which comprises:  
(i) a capsid comprising at least one capsid protein encoded by a cap gene of an AAV serotype against which the host has no antibodies as determined in step (a); and

09/807,802  
GNVFN.031US

(ii) a DNA molecule comprising a transgene under the control of regulatory sequences directing its expression.

20. The method according to claim 19, comprising the additional step of repeating steps (a) and (b).

23. A method for producing a selected gene product comprising the steps of transfecting a mammalian cell with the molecule according to claim 1 or a functional fragment thereof and culturing said cell under conditions suitable to express said gene product.

24. The recombinant vector according to claim 3, wherein said vector further comprises AAV-1 capsid proteins having the sequence of SEQ ID NO: 13, 15 or 17 or functional fragments thereof.

25. The recombinant vector according to claim 3, wherein said vector further comprises adenovirus sequences.

26. The host cell transduced with a recombinant viral vector according to claim 3.

27. The host cell transduced with a nucleic acid molecule according to claim 1.

28. The host cell transduced with a nucleic acid molecule according to claim 2.

09/807,802  
GNVPM.031US

29. The host cell transduced with a nucleic acid molecule according to claim 10.
30. The host cell transduced with a nucleic acid molecule according to claim 11.
31. The pharmaceutical composition comprising a carrier and a virus comprising the vector according to claim 3.
32. The method for delivery of a transgene comprising the step of delivering to a host cell a recombinant virus comprising a recombinant vector according to claim 3.
33. A recombinant virus having an AAV-1 capsid comprising an AAV-1 protein selected from among AAV-1 vp1 having the amino acid sequence of SEQ ID NO:13; AAV-1 vp2 having the amino acid sequence of SEQ ID NO:15 and AAV-1 vp3 having the amino acid sequence of SEQ ID NO:17 and a heterologous molecule which comprises an AAV 5' inverted terminal repeat sequence (ITR), a transgene, and an AAV 3' ITR.
34. The recombinant virus according to claim 33, wherein the 5' ITR and 3' ITR are of AAV serotype 2.
35. The recombinant virus according to claim 33 further comprising a regulatable promoter which directs expression of the transgene.
36. A recombinant host cell transformed with the recombinant virus of claim 33.

09/807,802  
GNVFN.031US

37. A recombinant host cell transformed with a nucleic acid sequence expressing one or more AAV-1 rep proteins selected from among rep78 having the amino acid sequence of SEQ ID NO:5, rep 68 having the amino acid sequence of SEQ ID NO:7, rep 52 having the amino acid sequence of SEQ ID NO: 9, and rep 40 having the amino acid sequence of SEQ ID NO:11.

38. A recombinant host cell transformed with a nucleic acid sequence expressing one or more AAV-1 cap proteins selected from among vp1 having the amino acid sequence of SEQ ID NO:13, vp2 having the amino acid sequence of SEQ ID NO: 15 and vp3 having the amino acid sequence of SEQ ID NO:17.

39. A method for transducing a muscle cell, said method comprising the step of infecting the cell with a recombinant AAV vector comprising an AAV1 capsid.

40. A method for transducing a liver cell, said method comprising the step of infecting the cell with a recombinant AAV vector comprising an AAV1 capsid.